

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A computer system ~~[[ - ]]~~ ~~implemented method for appraising of~~  
automatically computing from data received by a computer-based value appraising system  
an optimal appraisal value of a real estate property, where all of different types of appraisal  
approaches are used together to optimize a nonlinear objective function, the method  
comprising the steps of:

a) ~~storing, influence by the computer-based value appraising system, influence~~  
factors and a range of influence factor values for each of the different types of appraisal  
approaches;

b) ~~defining, by the computer-based value appraising system, a the~~ nonlinear  
objective function that includes control variables representing the stored influence factors  
for all of the different types of appraisal approaches;

c) using and causing a microprocessor to perform nonlinear programming of the  
nonlinear objective function to simultaneously optimize the nonlinear objective function for  
all of the different types of appraisal approaches by adjusting the control variables within  
the corresponding range of influence factor values;

d) ~~indicating-determining, by the computer-based value appraising system, an~~  
optimal range of appraisal values for the real estate property from the optimized nonlinear  
objective function according to each of the different types of appraisal approaches; and

e) outputting the optimal appraisal value to the user based on the optimal range of  
appraisal values, generating an appraisal of the real estate property based on the optimal  
range of appraisal values,

~~wherein each of the different types of appraisal approaches are a sales comparison~~  
~~approach, an income capitalization approach and a cost approach, and~~

where all of the different types of appraisal approaches are used together to optimize  
the nonlinear objective function.

2. (Currently Amended) ~~A~~The computer system implemented method according to claim 1, step (a) further including the step of automatically optimizing the stored range of influence factor values of each of the different types of appraisal approaches.
3. (Currently Amended) ~~A~~The computer system implemented method according to claim 1, step (c) further including the step of automatically eliminating all discrepancies or outliers of the stored influence factors.
4. (Currently Amended) ~~A~~The computer system implemented method according to claim 1, step (d) further including the step of automatically obtaining a respective optimal range of appraisal values for each of the different types of appraisal approaches.
5. (Currently Amended) ~~A~~The computer system implemented method according to claim 1, step (d) further including the step of automatically performing a feasibility study to determine whether the optimal range of appraisal values meets predetermined economic return requirements for the real estate property.
6. (Currently Amended) ~~A~~The computer system implemented method according to claim 1, step (d) further including the step of automatically performing a sensitivity analysis using the stored influence factors for each of the different types of appraisal approaches together to determine a sensitivity of the optimal range of appraisal values to changes in each of the stored influence factors.
7. (Currently Amended) ~~A~~The computer system implemented method according to claim 1, wherein the method automatically reconciles the optimal range of appraisal values for each of the different types of appraisal approaches.
8. (Currently Amended) ~~A~~The computer system implemented method according to claim 1, the method further including the step of repeating step (c) to search for combinations of the stored influence factors that automatically produce a same optimal value as for the stored influence factors individually.
9. (Currently Amended) ~~A~~The computer system implemented method according to claim 1, step (d) further including the step of automatically performing a highest and best use analysis to determine a financial feasibility criteria for each separate use.

10. (Currently Amended) ~~A~~The computer system implemented method according to claim 1, wherein the nonlinear objective function uses project periods that are considered in one of the different types of appraisal approaches.

11. (Currently Amended) ~~A~~The computer system implemented method according to claim 1, step (d) further including the step of optimally calculating different capitalization rates that are considered in one of the different types of appraisal approaches.

12. (Currently Amended) A system ~~for appraising~~for providing an automatic and optimal appraisal of a real estate property, the system comprising:

at least one [[a]]memory comprising computer-executable instructions to store for storing~~influence factors and a range of influence factor values for each of different types of appraisal approaches, and at least one data processor that executes the instructions;~~

a calculator—programmed~~computer-readable medium comprising computer-executable code for causing a processor to perform:~~ 1) defining a nonlinear objective function that includes control variables representing the stored influence factors for all of the different types of appraisal approaches, 2) nonlinear programming of the nonlinear objective function to simultaneously optimize the nonlinear objective function for all of the different types of appraisal approaches, by adjusting the control variables within the corresponding range of influence factor values and 3) determining an optimal range of appraisal values for the real estate property from the optimized nonlinear objective function according to each of the different types of appraisal approaches; and

an output for indicating the optimal range of appraisal values for the real estate property,

wherein each of the different types of appraisal approaches are a sales comparison approach, an income capitalization approach and a cost approach,

all of the different types of appraisal approaches are used together to optimize the nonlinear objective function, and

an appraisal of the real estate property is generated based on the optimal range of appraisal values.

13. (New) A system for providing an automatic and optimal appraisal of a real estate property, the system comprising:

at least one memory for storing influence factors and a range of influence factor values for each of different types of appraisal approaches;

a processor, coupled to the at least one memory, the processor is programmed to perform the optimal appraisal by: 1) defining a nonlinear objective function that includes control variables representing the stored influence factors for all of the different types of appraisal approaches, 2) nonlinear programming of the nonlinear objective function to simultaneously optimize the nonlinear objective function for all of the different types of appraisal approaches, by adjusting the control variables within the corresponding range of influence factor values and 3) determining an optimal range of appraisal values for the real estate property from the optimized nonlinear objective function according to each of the different types of appraisal approaches; and

an output for indicating the optimal range of appraisal values for the real estate property,

wherein each of the different types of appraisal approaches are a sales comparison approach, an income capitalization approach and a cost approach,

all of the different types of appraisal approaches are used together to optimize the nonlinear objective function, and

an appraisal of the real estate property is generated based on the optimal range of appraisal values.